

Appl. No. 09/922,854

AMENDMENTS TO THE SPECIFICATION

Please replace paragraphs 2-5 on page 8 with the following amended paragraphs:

--In step b), the present invention takes summation of the samples probability F_n , starting from F_0 (samples probability of tone scale 0) to $F_{N/2}$ (samples probability of tone-scale N/2) where N is the tone scale position of the transition point TP. For example, if N=100, then $N/2 = 50$. If the sum of samples probability F_0 to $F_{N/2}$ equals $[[F_1]] F_L$ i.e., $\Sigma F_n (n=0-(N/2)) = [[F_1]] F_L$ then the maximum downward offset D_1 of a maximum downward offset point P_1 can be calculated as follows:

$$D_1 = C_1 (2P[[F_1]] F_L - 1) \text{ when } 2P[[F_1]] F_L - 1 < 0, \text{ and}$$

$$D_1 = 0 \text{ when } 2P[[F_1]] F_L - 1 \geq 0$$

Then, we can find out the function and line of the shadow portion color enhancement curve O-TP (as shown in FIG. 4) according to the origin (0,0), the transition point TP (N,N) and the maximum downward offset value D_1 . In the above formula, C_1 is a shadow portion color enhancement constant (positive number). For example, $C_1=N$ in the embodiments of FIGS. 7A ~ 10C. And $2P[[F_1]] F_L - 1$ is a parameter for sufficiency of shadow portion color. $2P[[F_1]] F_L - 1 > 0$

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means shadow portion color is sufficient without the need of further enhancement.

In step c), the present invention takes summation of the samples probability F_n , starting from $F_{(N+255)/2}$ (samples probability of tone-scale $(N+255)/2$) to F_{255} (samples probability of tone-scale 255) where N is the tone scale of the transition point TP. If the sum of samples probability $F_{(N+255)/2}$ to F_{255} equals F_2 , i.e., $\sum F_n$ ($n=(N+255)/2 \sim 255$) = $[F_2] F_L$, then the maximum upward offset D_2 of a maximum upward offset point P_2 can be calculated as follows:

$$D_2 = C_2 (1 - 2P[F_2] F_L) / (P-1) \text{ when } (1 - 2P[F_2] F_L) / (P-1) > 0, \text{ and}$$

$$D_2 = 0 \quad \text{when } (1 - 2P[F_2] F_L) / (P-1) < 0$$

In which, C_2 is a light portion color enhancement constant (positive number). For example, $C_2=255-N$ in the embodiments of FIGS. 7A~10C. And, $(1 - 2P[F_2] F_L) / (P-1)$ is a parameter for sufficiency of light portion color. $(1 - 2P[F_2] F_L) / (P-1) < 0$ means light portion color is sufficient without the need of further enhancement.--